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APPENDIX A TERMINOLOGY

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Access

The right to transit to and from and make use of an area.

Air Traffic Control Assigned Airspace (ATCAA)

FAA-defined airspace not over an OPAREA within which specified activities, such as military flight training, are segregated from other IFR air traffic.

Controlled Access

Area where public access is prohibited or limited due to periodic training operations or sensitive natural or cultural resources.

Co-Use

Scheduled uses safely allow other units to transit the area or conduct activities.

Exclusive Use

Scheduled solely for the assigned unit for safety reasons.

Facilities

Physical elements that can include roads, buildings, structures and utilities. These elements are generally permanent or, if temporary, have been permanently placed in one location for an extended period of time.

Fleet Readiness Training Plan (FRTTP)

The 27-month cycle that replaces the Interdeployment Training Cycle (IDTC). The FRTTP includes four phases prior to deployment: Maintenance; Unit Level Training; Integrated training and Sustainment.

Fleet Response Plan/Fleet Readiness Program (FRP)

The Navy response to the 2002/2003 international situation in Afghanistan and Iraq was the Fleet Response Plan. Following that the Fleet commanders developed the Fleet Readiness Program. Both names refer to the same operational construct. The FRP is designed to more rapidly develop and then sustain readiness in ships and squadrons so that, in a national crisis or contingency operation, the Navy can quickly surge significant combat power to the scene.

Frequent User

A unit that conducts training and exercises in the training areas on a regular basis but does not maintain a permanent presence.

Host

The Facilities Host holds plant account of all Class I (Land) and most Class II (Buildings) property. The Operational Host determines and executes operational policy for the Range/Range Complex.

Impact Area

The identified area within a range intended to capture or contain ammunition, munitions, or explosives and resulting debris, fragments, and components from various weapon system employments.

Intermittent User

A unit that conducts training and exercises in the training areas throughout the year, but not on a regularly scheduled basis, and does not maintain a permanent presence.

Land/Sea Use

The exclusive or prioritized commitment of a land/sea area, and any targets, systems, and facilities therein, to a continuing purpose that could include a grouping of operations, buffer zone, environmental mitigation, etc. The land/sea area may consist of a range/range complex, grouping of similar facilities, or natural resource-based area with no facilities.

Major Range Event (Event)

A significant operational employment during which training is accomplished. An event is a Navy approved employment schedule term. An event can have multiple training operations (sub-events), each with its own mission, objective and time period. Training Events may also be periods of operational employment that are also considered major training events such as COMPTUEX (Composite training unit exercise), JTFEX (Joint training fleet exercise), or other exercises such as BRIGHT STAR, COBRA GOLD, or UNIFIED ENDEAVOR.

Maneuver

The employment of forces on the battlefield through movement in combination with fire, or fire potential, to achieve a position of advantage with respect to the enemy in order to accomplish the mission.

Maneuver Area

Range used for maneuver element training.

Maneuver Element

The basic element of a larger force independently capable of maneuver. Normally, a Marine Division recognizes its infantry battalions, tank battalion, and light armored reconnaissance (LAR) battalion as maneuver elements. A rifle (or tank/LAR) battalion would recognize its companies as maneuver elements. A rifle (or tank/LAR) company would recognize its platoons as maneuver elements. Maneuver below the platoon level is not normally possible since fire and movement can be combined only at the platoon level or higher.

Military Operating Area (MOA)

Airspace below 18,000 feet used to separate or segregate certain non-hazardous military flight activities from IFR traffic and to identify for VFR traffic where these activities are conducted.

Military Training Route (MTR)

An airspace corridor established for military flight training at airspeeds in excess of 250 nautical miles/hour.

Munitions Constituents

Any materials originating from unexploded ordnance, discarded military munitions, or other military munitions, including explosive and non-explosive materials, and emission, degradation, or breakdown elements of such ordnance or munitions.

Operation

A training exercise, R&D test, or field event. A combination of activities accomplished together for a scheduled period of time for an intended military mission or task. An operation can range in size from a single unit exercise to a Joint or Combined event with many participants: aircraft, ships, submarines, or others.

Operational Range

A range that is under the jurisdiction, custody, or control of the Secretary of Defense and is used for range activities; or although not currently being used for range activities, that is still considered by the Secretary to be a range and has not been put to a new use that is incompatible with range activities.

Operating Area (OPAREA)

Ocean area not part of a range used by military personnel or equipment for training and weapons system research, development, test & evaluation.

Participant

An individual ship, aircraft, submarine, amphibious vehicle, or ground unit.

Prohibited Area

Designated airspace where aircraft are prohibited. Can also apply to surface craft.

Range

A land or sea area designated and equipped for any or all of the following reasons:

- Maneuver element training;
- Research, development, test and evaluation of weapons and weapons systems;
- Delivery or firing of live/inert ordnance against scored and/or tactical targets for training purposes.

1 Could include firing lines and positions, maneuver areas, firing
2 lanes, test pads, detonation pads, impact areas, and buffer zones with
3 restricted access and exclusionary areas, but does not include
4 airspace.

5
6 **Range Activity**

7 An individual training or test function performed on a range or in an
8 Operating Area. Examples include missile launching, bombardment,
9 vehicle driving, of FCLP. Activities, when combined with other
10 functions, generally make up an operation. Individual RDT&E
11 functions are also included in this category.

12
13 **Range Complex**

14 A geographically integrated set of ranges, operational areas, and
15 associated special use airspace, designated and equipped with a
16 command and control system and supporting infrastructure for
17 freedom of maneuver and practice in munitions firing and live
18 ordnance use against scored and/or tactical targets and/or Electronic
19 Warfare tactical combat training environment.

20
21 **Range Operation**

22 A live training exercise, RDT&E test, or field maneuver conducted
23 for a specific strategic, operational or tactical military mission or
24 task. A military action. The basic metric of range activity. Operations
25 may occur singly, or multiple operations may be accomplished as
26 part of a larger event. Operations consist of a combination of
27 activities accomplished together. Operations can be characterized by
28 their number (ops tempo) and type, participants, footprint and
29 ordnance expended. The type of operation can include air, land, sea
30 and undersea warfare training or testing and can be identified by
31 Naval Tactical Task. Participants can include a specific number and
32 type of aircraft, ships, submarines, amphibious or other vehicles and
33 personnel. Ordnance broadly encompasses all weapons, missiles,
34 shells and expendables (chaff and flares). An individual operation
35 occurs over a given geographic footprint for a scheduled period of
36 time, usually less than one day. An example is a Mining operation.
37 Each Mining operation is discrete, relatively short-term, but it may
38 be combined with other operations in a single, larger training event,
39 like a JTFEX, which lasts for several days or weeks.

40
41 **Range Safety Zone (RSZ)**

42 Area around air-to-ground ranges designed to provide safety of flight
43 and personnel safety relative to dropped ordnance and crash sites.
44 Land use restrictions can vary depending on the degree of safety
45 hazard, usually decreasing in magnitude from the weapons impact
46 area (including potential ricochet) to the area of armed over flight
47 and aircraft maneuvering.
48

Readiness

The ability of forces, units, weapon systems, or equipment to deliver the outputs for which they were designed (includes the ability to deploy and employ without unacceptable delays).

Restricted Area

Airspace within which access by aircraft not subject to the Using Agency, while not wholly prohibited, is subject to restriction. Normally associated with land areas and may contain hazards invisible to non-participants (e.g. missile firings and conventional ordnance). The controlling Air Traffic Control facility may authorize IFR/VFR operations in the area when the Using Agency is not using it.

Safety Zone

Administratively designated/implied areas designated to limit hazards to personnel and the public, and resolve conflicts between operations. Can include range safety zones (RSZ), ESQDS, surface danger zones, special use airspace, HERO/HERP Areas, etc.

Security Zone

Area where public or non-operational support access is prohibited due to training operations of a classified or hazardous nature.

Sortie

A single operational training or RDT&E event by one aircraft that uses a range or operating area. A single aircraft sortie is one complete flight (i.e., one take-off and one final landing).

Special Use Airspace (SUA)

Airspace within which the FAA can confine certain activities such as military flight operations and/or may impose limitations upon aircraft operations not part of those activities. SUA includes military operating areas, restricted areas, and warning areas.

Stakeholder

Those people or organizations that are affected by or have the ability to influence the outcome of an issue. In general this includes regulators, the regulated entity, and the public. It also includes those individuals who meet the above criteria and do not have a formal or statutorily defined decision-making role.

Sustainable Range Management

Management of an operational range in a manner that supports national security objectives and maintains the operational readiness of the Armed Forces; and ensures the long-term viability of operational ranges while protecting human health and the environment.

Sustaining the Capability

Maintaining the necessary skills, readiness and abilities.

System of Systems

All communications, electronic warfare, instrumentation, and systems linkage supporting the Range/Range Complex.

Targets

Earthwork, materials, actual or simulated weapons platforms (tanks, aircraft, EW systems, vehicles, ships, etc.) comprising tactical target scenarios within the Range/Range Complex impact areas. Could also include SEPTAR, AQM, BQM, MQM, etc.

Tenant

A unit with an Inter-Service Support Agreement with the host for use of the training areas and maintains a permanent presence.

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APPENDIX B ENCROACHMENT MATRICES

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Ranges to Readiness (R2R)

Encroachment Issues and Training Impacts

VACAPES OPAREA
OPAREA; W-50; W-72; W-110; W-386; W-387

Senior Readiness Oversight Council (SROC)

Encroachment Issues	Encroachment Factors (CINCPACFLT/CINCLANTFLT Ranges to Readiness (R2R) Study, December 2001)											
	Creates Avoidance Areas	Reduces Training Days	Prohibits Certain Training Events	Reduces Range Access	Segments Training/ Reduces Realism	Limits Application of New Weapons Technologies	Raises Flight Altitudes	Inhibits New Tactics Development	Complicates Night and All-Weather Training	Reduces Live Fire Proficiency	Increases Personnel Tempo	Greatly Increases O&M Costs
Endangered Species/ Critical Habitat (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
UXO and Munitions (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Frequency Encroachment (SROC)	Minimal Impact	LINK-16 applications require up to 90 days advance (Moderate Impact). Approvals have limited BGF transmissions to 6 hrs per day (Moderate Impact).	Minimal Impact	Minimal Impact	Minimal Impact	FAA restricted use of LINK-16 transmissions, time slots, and pulses per unit of time limits application of new technologies of LINK-16 (Moderate Impact).	Minimal Impact	FAA restricted use of LINK-16 transmissions, time slots, and pulses per unit of time limits tactics development of LINK-16 (Moderate Impact). LINK-16 frequency restrictions and allowable employment time (Moderate Impact).	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Maritime Sustainability (SROC)	Minimal Impact	Minimal Impact	Navy policy prohibits IEEB use within 50 nm of coast (Moderate Impact). LFA use enjoined by Federal Court. FAA prohibits use of LINK-16 within 50 nm of coast (Moderate Impact). Navy prohibition on the use of active sonar during Q-Route transit simulation in JTFEX (Severe Impact)	Minimal Impact	Restrictions on IEEB and LFA employment preclude full use of available ADW search systems during JTFEX and CZX (Moderate Impact).	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Airspace Restrictions (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Flight procedures between W-72 and Navy Dams interrupts flight operations. Airspeeds, altitudes, and frequencies must be changed such that they segment training and reduce training realism (Moderate Impact). Loss of W-72 airspace to MISSILEXs limits maneuvering airspace (Moderate Impact).	Minimal Impact	Minimal Impact	Loss of W-72 airspace to MISSILEXs (Moderate Impact).	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Air Quality (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Airborne Noise (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Urban Growth (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Cultural Resources	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Water Quality	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Wetlands	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Range Transients	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact

Minimal Impact Moderate Impact Severe Impact



Encroachment Issues and Training Impacts

Ranges to Readiness (R2R)

Navy Dare County
Navy Dare Range; R-5314

Senior Readiness Oversight Council (SROC)

Encroachment Issues	Encroachment Factors (CINCPACFLT/CINCLANTFLT Ranges to Readiness (R2R) Study, December 2001)											
	Creates Avoidance Areas	Reduces Training Days	Prohibits Certain Training Events	Reduces Range Access	Segments Training/ Reduces Realism	Limits Application of New Weapons Technologies	Raises Flight Altitudes	Inhibits New Tactics Development	Complicates Night and All-Weather Training	Reduces Live Fire Proficiency	Increases Personnel Tempo	Greatly Increases O&M Costs
Endangered Species/ Critical Habitat (SROC)	The red cockaded woodpecker habitat between the Navy and Air Force sections of the range precludes range expansion to the South (Minimal Impact).	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
UXO and Munitions (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Frequency Encroachment (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Maritime Sustainability (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Airspace Restrictions (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Air Quality (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Airborne Noise (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Urban Growth (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Cultural Resources	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Water Quality	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Wetlands	Wetlands restrictions limit target placement and range maintenance (Severe Impact).	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Range Transients	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact

Minimal Impact Moderate Impact Severe Impact



Encroachment Issues and Training Impacts

Ranges to Readiness (R2R)

Stumpy Point
Stumpy Point Range; R-5313

Senior Readiness Oversight Council (SROC)

Encroachment Issues	Encroachment Factors (CINCPACFLT/CINCLANTFLT Ranges to Readiness (R2R) Study, December 2001)											
	Creates Avoidance Areas	Reduces Training Days	Prohibits Certain Training Events	Reduces Range Access	Segments Training/ Reduces Realism	Limits Application of New Weapons Technologies	Raises Flight Altitudes	Inhibits New Tactics Development	Complicates Night and All-Weather Training	Reduces Live Fire Proficiency	Increases Personnel Tempo	Greatly Increases O&M Costs
Endangered Species/ Critical Habitat (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
UXO and Munitions (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Frequency Encroachment (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Maritime Sustainability (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Airspace Restrictions (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Air Quality (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Airborne Noise (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Urban Growth (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Cultural Resources	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Water Quality	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Wetlands	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Range Transients	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact

Minimal Impact Moderate Impact Severe Impact



Encroachment Issues and Training Impacts

Ranges to Readiness (R2R)

Palmetto Point
Palmetto Point Range; R-5302

Senior Readiness Oversight Council (SROC)

Encroachment Issues	Encroachment Factors (CINCPACFLT/CINCLANTFLT Ranges to Readiness (R2R) Study, December 2001)											
	Creates Avoidance Areas	Reduces Training Days	Prohibits Certain Training Events	Reduces Range Access	Segments Training/ Reduces Realism	Limits Application of New Weapons Technologies	Raises Flight Altitudes	Inhibits New Tactics Development	Complicates Night and All-Weather Training	Reduces Live Fire Proficiency	Increases Personnel Tempo	Greatly Increases O&M Costs
Endangered Species/ Critical Habitat (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
UXO and Munitions (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Frequency Encroachment (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Maritime Sustainability (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Airspace Restrictions (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Air Quality (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Airborne Noise (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Urban Growth (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Cultural Resources	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Water Quality	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Wetlands	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Range Transients	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact

Minimal Impact Moderate Impact Severe Impact



Ranges to Readiness (R2R)

Encroachment Issues and Training Impacts

Dam Neck
Dam Neck Range; R-6606

Senior Readiness Oversight Council (SROC)

Encroachment Issues	Encroachment Factors (CINCPACFLT/CINCLANTFLT Ranges to Readiness (R2R) Study, December 2001)											
	Creates Avoidance Areas	Reduces Training Days	Prohibits Certain Training Events	Reduces Range Access	Segments Training/ Reduces Realism	Limits Application of New Weapons Technologies	Raises Flight Altitudes	Inhibits New Tactics Development	Complicates Night and All-Weather Training	Reduces Live Fire Proficiency	Increases Personnel Tempo	Greatly Increases O&M Costs
Endangered Species/ Critical Habitat (SROC)	Training is prohibited in sea turtle nesting sites (Minimal Impact). Vehicular movement is confined to existing routes in sand dunes (Minimal Impact).	Minimal Impact	Vehicular training is prohibited on sand dunes (Minimal Impact).	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
UXO and Munitions (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Frequency Encroachment (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Maritime Sustainability (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Airspace Restrictions (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Air Quality (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Airborne Noise (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Urban Growth (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Cultural Resources	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Water Quality	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Wetlands	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Range Transients	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact

Minimal Impact Moderate Impact Severe Impact



Encroachment Issues and Training Impacts

Ranges to Readiness (R2R)

Oceana TACTS
Oceana TACTS Range; W-72

Senior Readiness Oversight Council (SROC)

Encroachment Issues	Encroachment Factors (CINCPACFLT/CINCLANTFLT Ranges to Readiness (R2R) Study, December 2001)											
	Creates Avoidance Areas	Reduces Training Days	Prohibits Certain Training Events	Reduces Range Access	Segments Training/ Reduces Realism	Limits Application of New Weapons Technologies	Raises Flight Altitudes	Inhibits New Tactics Development	Complicates Night and All-Weather Training	Reduces Live Fire Proficiency	Increases Personnel Tempo	Greatly Increases O&M Costs
Endangered Species/ Critical Habitat (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
UXO and Munitions (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Frequency Encroachment (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Maritime Sustainability (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Airspace Restrictions (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Air Quality (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Airborne Noise (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Urban Growth (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Cultural Resources	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Water Quality	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Wetlands	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Range Transients	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact

Minimal Impact Moderate Impact Severe Impact



Encroachment Issues and Training Impacts

Ranges to Readiness (R2R)

Hatteras ATCAA

Senior Readiness Oversight Council (SROC)

Encroachment Issues	Encroachment Factors (CINCPACFLT/CINCLANTFLT Ranges to Readiness (R2R) Study, December 2001)											
	Creates Avoidance Areas	Reduces Training Days	Prohibits Certain Training Events	Reduces Range Access	Segments Training/ Reduces Realism	Limits Application of New Weapons Technologies	Raises Flight Altitudes	Inhibits New Tactics Development	Complicates Night and All-Weather Training	Reduces Live Fire Proficiency	Increases Personnel Tempo	Greatly Increases O&M Costs
Endangered Species/ Critical Habitat (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
UXO and Munitions (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Frequency Encroachment (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Maritime Sustainability (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Airspace Restrictions (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Air Quality (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Airborne Noise (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Urban Growth (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Cultural Resources	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Water Quality	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Wetlands	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Range Transients	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact

Minimal Impact Moderate Impact Severe Impact



Encroachment Issues and Training Impacts

Ranges to Readiness (R2R)

Pamlico MOA

Senior Readiness Oversight Council (SROC)

Encroachment Issues	Encroachment Factors (CINCPACFLT/CINCLANTFLT Ranges to Readiness (R2R) Study, December 2001)											
	Creates Avoidance Areas	Reduces Training Days	Prohibits Certain Training Events	Reduces Range Access	Segments Training/ Reduces Realism	Limits Application of New Weapons Technologies	Raises Flight Altitudes	Inhibits New Tactics Development	Complicates Night and All-Weather Training	Reduces Live Fire Proficiency	Increases Personnel Tempo	Greatly Increases O&M Costs
Endangered Species/ Critical Habitat (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
UXO and Munitions (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Frequency Encroachment (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Maritime Sustainability (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Airspace Restrictions (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Air Quality (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Airborne Noise (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Urban Growth (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Cultural Resources	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Water Quality	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Wetlands	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Range Transients	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact

Minimal Impact Moderate Impact Severe Impact



Encroachment Issues and Training Impacts

Ranges to Readiness (R2R)

Bloodworth Island Target/R-4002

Senior Readiness Oversight Council (SROC)

Encroachment Issues	Encroachment Factors (CINCPACFLT/CINCLANTFLT Ranges to Readiness (R2R) Study, December 2001)											
	Creates Avoidance Areas	Reduces Training Days	Prohibits Certain Training Events	Reduces Range Access	Segments Training/ Reduces Realism	Limits Application of New Weapons Technologies	Raises Flight Altitudes	Inhibits New Tactics Development	Complicates Night and All-Weather Training	Reduces Live Fire Proficiency	Increases Personnel Tempo	Greatly Increases O&M Costs
Endangered Species/ Critical Habitat (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
UXO and Munitions (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Frequency Encroachment (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Maritime Sustainability (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Airspace Restrictions (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Air Quality (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Airborne Noise (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Urban Growth (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Cultural Resources	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Water Quality	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Wetlands	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Range Transients	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact

Minimal Impact Moderate Impact Severe Impact



Encroachment Issues and Training Impacts

Ranges to Readiness (R2R)

Hooper Target/R-4005

Senior Readiness Oversight Council (SROC)

Encroachment Issues	Encroachment Factors (CINCPACFLT/CINCLANTFLT Ranges to Readiness (R2R) Study, December 2001)											
	Creates Avoidance Areas	Reduces Training Days	Prohibits Certain Training Events	Reduces Range Access	Segments Training/ Reduces Realism	Limits Application of New Weapons Technologies	Raises Flight Altitudes	Inhibits New Tactics Development	Complicates Night and All-Weather Training	Reduces Live Fire Proficiency	Increases Personnel Tempo	Greatly Increases O&M Costs
Endangered Species/ Critical Habitat (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
UXO and Munitions (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Frequency Encroachment (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Maritime Sustainability (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Airspace Restrictions (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Air Quality (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Airborne Noise (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Urban Growth (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Cultural Resources	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Water Quality	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Wetlands	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Range Transients	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact

Minimal Impact Moderate Impact Severe Impact



Encroachment Issues and Training Impacts

Ranges to Readiness (R2R)

Hannibal Target/R-4005

Senior Readiness Oversight Council (SROC)

Encroachment Issues	Encroachment Factors (CINCPACFLT/CINCLANTFLT Ranges to Readiness (R2R) Study, December 2001)											
	Creates Avoidance Areas	Reduces Training Days	Prohibits Certain Training Events	Reduces Range Access	Segments Training/ Reduces Realism	Limits Application of New Weapons Technologies	Raises Flight Altitudes	Inhibits New Tactics Development	Complicates Night and All-Weather Training	Reduces Live Fire Proficiency	Increases Personnel Tempo	Greatly Increases O&M Costs
Endangered Species/ Critical Habitat (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
UXO and Munitions (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Frequency Encroachment (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Maritime Sustainability (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Airspace Restrictions (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Air Quality (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Airborne Noise (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Urban Growth (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Cultural Resources	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Water Quality	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Wetlands	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Range Transients	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact

Minimal Impact Moderate Impact Severe Impact



Encroachment Issues and Training Impacts

Ranges to Readiness (R2R)

Tangier Island Target/R-6609

Senior Readiness Oversight Council (SROC)

Encroachment Issues	Encroachment Factors (CINCPACFLT/CINCLANTFLT Ranges to Readiness (R2R) Study, December 2001)											
	Creates Avoidance Areas	Reduces Training Days	Prohibits Certain Training Events	Reduces Range Access	Segments Training/ Reduces Realism	Limits Application of New Weapons Technologies	Raises Flight Altitudes	Inhibits New Tactics Development	Complicates Night and All-Weather Training	Reduces Live Fire Proficiency	Increases Personnel Tempo	Greatly Increases O&M Costs
Endangered Species/ Critical Habitat (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
UXO and Munitions (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Frequency Encroachment (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Maritime Sustainability (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Airspace Restrictions (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Air Quality (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Airborne Noise (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Urban Growth (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Cultural Resources	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Water Quality	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Wetlands	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Range Transients	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact

Minimal Impact Moderate Impact Severe Impact



Encroachment Issues and Training Impacts

Ranges to Readiness (R2R)

R-4006

Senior Readiness Oversight Council (SROC)

Encroachment Issues	Encroachment Factors (CINCPACFLT/CINCLANTFLT Ranges to Readiness (R2R) Study, December 2001)											
	Creates Avoidance Areas	Reduces Training Days	Prohibits Certain Training Events	Reduces Range Access	Segments Training/ Reduces Realism	Limits Application of New Weapons Technologies	Raises Flight Altitudes	Inhibits New Tactics Development	Complicates Night and All-Weather Training	Reduces Live Fire Proficiency	Increases Personnel Tempo	Greatly Increases O&M Costs
Endangered Species/ Critical Habitat (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
UXO and Munitions (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Frequency Encroachment (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Maritime Sustainability (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Airspace Restrictions (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Air Quality (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Airborne Noise (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Urban Growth (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Cultural Resources	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Water Quality	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Wetlands	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Range Transients	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact

Minimal Impact Moderate Impact Severe Impact



Encroachment Issues and Training Impacts

Ranges to Readiness (R2R)

R-4007A

Senior Readiness Oversight Council (SROC)

Encroachment Issues	Encroachment Factors (CINCPACFLT/CINCLANTFLT Ranges to Readiness (R2R) Study, December 2001)											
	Creates Avoidance Areas	Reduces Training Days	Prohibits Certain Training Events	Reduces Range Access	Segments Training/ Reduces Realism	Limits Application of New Weapons Technologies	Raises Flight Altitudes	Inhibits New Tactics Development	Complicates Night and All-Weather Training	Reduces Live Fire Proficiency	Increases Personnel Tempo	Greatly Increases O&M Costs
Endangered Species/ Critical Habitat (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
UXO and Munitions (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Frequency Encroachment (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Maritime Sustainability (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Airspace Restrictions (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Air Quality (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Airborne Noise (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Urban Growth (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Cultural Resources	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Water Quality	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Wetlands	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Range Transients	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact

Minimal Impact Moderate Impact Severe Impact



Encroachment Issues and Training Impacts

Ranges to Readiness (R2R)

R-4008

Senior Readiness Oversight Council (SROC)

Encroachment Issues	Encroachment Factors (CINCPACFLT/CINCLANTFLT Ranges to Readiness (R2R) Study, December 2001)											
	Creates Avoidance Areas	Reduces Training Days	Prohibits Certain Training Events	Reduces Range Access	Segments Training/ Reduces Realism	Limits Application of New Weapons Technologies	Raises Flight Altitudes	Inhibits New Tactics Development	Complicates Night and All-Weather Training	Reduces Live Fire Proficiency	Increases Personnel Tempo	Greatly Increases O&M Costs
Endangered Species/ Critical Habitat (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
UXO and Munitions (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Frequency Encroachment (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Maritime Sustainability (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Airspace Restrictions (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Air Quality (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Airborne Noise (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Urban Growth (SROC)	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Cultural Resources	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Water Quality	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Wetlands	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact
Range Transients	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact	Minimal Impact

Minimal Impact Moderate Impact Severe Impact

1 **NSW ENCROACHMENT MATRICES (16 IN TOTAL) WILL BE INCLUDED IN THE**
2 **100% SUBMITTAL**

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Intentionally Left Blank

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APPENDIX C RCD GAP ANALYSIS MATRICES

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APPENDIX D

PERSONNEL DIRECTORY

Appendix D, Personnel Directory, will be developed and included in the 100% Draft.

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APPENDIX E

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APPENDIX F

COMPONENT RANGE PROJECTS—INVESTMENT PLAN

Appendix F, Component Range Projects—Investment Plan, will be developed and included in the 100% Draft.

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APPENDIX G

RANGE COMPLEX MANAGER'S EXERCISE PREPARATION CHECKLIST

AREAS TO CONSIDER WHEN SCHEDULING/MANAGING RANGES

- Range POCs
 - Targets
 - EW Range
 - Tracking Range (TACTS, UTR, etc.)
 - Communications
 - Schedules
 - Emergency Response
 - Management
- Restrictions
 - Airspace
 - Sea Space
 - Undersea Space
 - Land Area
- Range Operating Procedures
 - Communications
 - Operating hours
 - Scheduling
 - Organizational Relationships with Other Ranges
 - Inter-Agency Coordination Procedures
- Range Capabilities and Limitations
 - Availability
 - Tracking
 - Threat systems
 - Debrief
 - Ordnance
 - Communications
- Facilities Planning
 - Runways, hangars, berthing
 - Maintenance
 - Servicing (fuel, oil, etc.)
 - Ordnance
 - Billeting, mess, ground transportation
- Significant and Recent Changes to:
 - Policies
 - Procedures
 - Facilities
 - Infrastructure
- Contingency/Emergency Procedures
- Environmental Restrictions/Compliance Considerations
 - Environmental Issues
 - Need for Environmental Planning
 - Published Environmental Documentation
 - Status of New Environmental Documentation

- 1 • Safety Policies and Procedures
- 2 • Governing Documents and Instructions
- 3 • Exercise Parameters
- 4 ○ Capabilities Exercised
- 5 ○ Live-Fire Events
- 6 ○ Ordnance
- 7 ○ Operations to be Conducted
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